



Features and Benefits

- 25.600000 MHz operating frequency
- 45°C to +85°C extended temperature operation
- Less than +/- 50 ppb over operating temperature
- Frequency tolerance after 3 minutes warmup : Less than +/- 0.52 Hz
- Low Noise +9 dBm typ. output power
- +/- 2 ppm min. tuning range over 0V to +4V
- 20.0 mm x 20.0 mm x 10.6 mm hermetically sealed package

Typical Applications

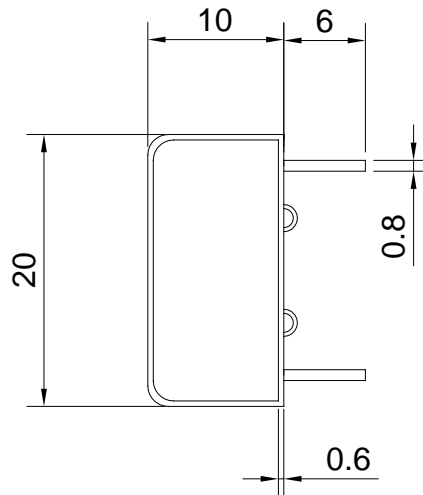
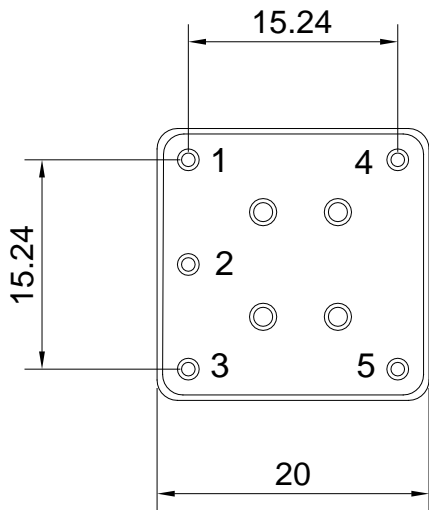
Optimized as Mobile Radio Infrastructure Clock Reference

Description

Optimized SC-cut resonator used over many years in production for this type of ovenized oscillator clock reference application.

Mechanical Drawing & Pin Connections

Drawing No: MD160007-1



Unit:mm  
1mm=0.0394inch

| Pin | Function        |
|-----|-----------------|
| 1   | GND             |
| 2   | Output          |
| 3   | Power Supply    |
| 4   | Ref. Voltage    |
| 5   | Control Voltage |



### Specifications

| Oscillator Specification        | Sym             | Condition                           | Value     |           |         | Unit   | Note |
|---------------------------------|-----------------|-------------------------------------|-----------|-----------|---------|--------|------|
|                                 |                 |                                     | Min.      | Typ.      | Max.    |        |      |
| Nominal Frequency               | f <sub>0</sub>  |                                     | 25.600000 |           |         | MHz    |      |
| Frequency Tolerance             |                 | After power on 3min max.            |           |           | +/-0.02 | ppm    |      |
| <b>RF Output</b>                |                 |                                     |           |           |         |        |      |
| Waveform :                      |                 |                                     |           | Sine-wave |         |        |      |
| Level                           | L               | For -45°C to +85°C                  | +7        | +9        | +11     | dBm    |      |
| Load                            | R <sub>L</sub>  |                                     | 45        | 50        | 55      | Ohm    |      |
| Harmonics                       |                 |                                     | -35       |           |         | dBc    |      |
| Spurious                        |                 |                                     | -75       |           |         | dBc    |      |
| <b>Frequency control</b>        |                 |                                     |           |           |         |        |      |
| Reference Voltage               |                 |                                     | +3.5      | +4        | +4.5    | V      |      |
| Turning Voltage                 |                 |                                     | 0         |           | 4       | V      |      |
| Frequency Turning Range         |                 |                                     | +/-2      |           |         | ppm    |      |
| <b>Power Supply</b>             |                 |                                     |           |           |         |        |      |
| Voltage                         | V <sub>cc</sub> |                                     | 4.75      | 5         | 5.25    | V      |      |
| Warm-up Current                 |                 |                                     |           |           | 600     | mA     |      |
| Steady state Current            |                 |                                     |           |           | 200     | mA     |      |
| Warm-up Time:                   | T <sub>up</sub> | The stability is less than +/- 1ppm |           | 30        |         | s      |      |
| <b>Frequency Stability</b>      |                 |                                     |           |           |         |        |      |
| Vs. Temperature                 |                 | From -45°C to +85°C                 |           |           | +/-0.05 | ppm    |      |
| Aging                           | per year        |                                     |           | +/-0.1    |         | ppm    |      |
| SSB Phase noise                 |                 | 1Hz                                 |           | -80       |         | dBc/Hz |      |
|                                 |                 | 10 Hz                               |           | -120      |         |        |      |
|                                 |                 | 100 Hz                              |           | -140      |         |        |      |
|                                 |                 | 1 KHz                               |           | -150      |         |        |      |
|                                 |                 | 10 KHz                              |           | -155      |         |        |      |
| <b>Environmental Conditions</b> |                 |                                     |           |           |         |        |      |
| Operating temperature range     |                 | -45°C to +85°C                      |           |           |         |        |      |
| Humidity                        |                 | Hermetically sealed                 |           |           |         |        |      |